

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO**

**PROCEEDING NO. 16A- \_\_\_\_\_E**

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**IN THE MATTER OF THE APPLICATION OF BLACK HILLS/COLORADO  
ELECTRIC UTILITY COMPANY, LP FOR (1) APPROVAL OF ITS 2016 ELECTRIC  
RESOURCE PLAN, AND (2) APPROVAL OF ITS 2018-2021 RES COMPLIANCE  
PLAN.**

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**DIRECT TESTIMONY OF**

**KEVIN PRATT**

**ON BEHALF OF**

**BLACK HILLS/COLORADO ELECTRIC UTILITY COMPANY, LP**

**June 3, 2016**

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**DIRECT TESTIMONY OF KEVIN PRATT**

**I. INTRODUCTION AND QUALIFICATIONS**

**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is Kevin Pratt. My business address is 105 S. Victoria Ave., Pueblo, Colorado 81003.

**Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

A. I am the Renewable Energy Program Manager for Black Hills/Colorado Electric Utility Company, LP (“Black Hills” or the “Company”).

**Q. BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND AND BUSINESS BACKGROUND.**

A. My educational background and employment history is attached as Appendix A.

**Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

A. I am testifying on behalf of Black Hills.

**Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE COMMISSION?**

A. Yes.

**II. PURPOSE OF TESTIMONY**

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. The purpose of my testimony is to provide information about the Company’s on-site solar and Community Solar Gardens (“CSG”) programs as they currently exist and as proposed for the 2018-2021 RES Compliance Plan (“RES Plan”).



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**Table KP-1  
Current On-Site Solar Program**

<b>System Category</b>	<b>Annual Solar Program Maximum kW</b>	<b>PBI Rate (per kWh production over a 10-year period)</b>
<b>Small:</b> 0.5 kW up to and including 10 kW	460	\$0.05 <sup>1</sup>
<b>Medium Tier 1:</b> 10.001 kW up to and including 30 kW	345	\$0.05
<b>Medium Tier 2:</b> 30.001 kW up to and including 60 kW	245	\$0.075
<b>Medium Tier 3:</b> 60.001 kW up to and including 100 kW	100	\$0.075
<b>Total:</b>	1,150 kW	

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Black Hills receives all Renewable Energy Credits (“RECs”) associated with these renewable energy systems delivered to Black Hills for 20 years. In addition, pursuant to the settlement agreement attached to Decision No. C15-1279 at ¶ 38, Black Hills has the ability to reallocate available capacity during a calendar year among system categories based on demand.

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**Q. HOW HAS THE CURRENT ON-SITE SOLAR PROGRAM**

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**PERFORMED?**

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A. Table KP-2 below shows how the on-site solar program performed in 2015 and

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how it has performed so far in 2016.

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<sup>1</sup> A 5 kW PBI cap applied to the small category was removed effective December 15, 2015 in accordance with Decision No. C15-1279 issued in Proceeding No. 14A-0535E. From January 1, 2015 until that date, the Interim On-Site Solar program, approved in Decision No. C14-1383 in Proceeding No. 14A-0923E, applied the 5 kW PBI cap to small systems.

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**Table KP-2  
 On-Site Solar Reservations**

<b>System Category</b>	<b>Annual Solar Program Maximum kW</b>	<b>2015 Reservations (Under Interim On-Site Solar Program)</b>	<b>2016 Reservations (As of May 19, 2016)</b>
<b>Small:</b> 0.5 kW up to and including 10 kW	460	190.46	225.50
<b>Medium Tier 1:</b> 10.001 kW up to and including 30 kW	345	101.83	177.65
<b>Medium Tier 2:</b> 30.001 kW up to and including 60 kW	245	39	0
<b>Medium Tier 3:</b> 60.001 kW up to and including 100 kW	100	100	0
<b>Total Available/Reserved</b>	<b>1,150</b>	<b>431.29</b>	<b>403.15</b>
<b>Total Remaining</b>		<b>718.71</b>	<b>746.85</b>

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5 **Q. WHAT IS BLACK HILLS PROPOSING FOR THE 2018 THROUGH 2021**  
 6 **ON-SITE SOLAR PROGRAM?**

7 **A.** The Company is proposing to:

- 8 • resize the on-site solar categories by combining the Small and Medium
- 9 Tier 1 categories, creating a single Medium Category, and creating a new
- 10 Large Category;
- 11 • increase the annual amount of available capacity from the current 1,150
- 12 kW to 1,500 kW; and

- maintain the current incentive levels, including use of the current maximum PBI of \$0.075/kWh for the new Large Category.

The proposed on-site solar program is summarized in the table below:

**Table KP-3  
Summary of Proposed 2018-2021 On-Site Solar Program**

<b>System Category</b>	<b>Annual On-Site Solar Program Maximum kW</b>	<b>PBI Rate (per kWh production over a 10-year period)</b>
<b>Small:</b> 0.5 kW up to and including 30 kW	600	\$0.05
<b>Medium:</b> 30.001 kW up to and including 100 kW	400	\$0.075
<b>Large:</b> 100.001 kW up to and including 500 kW	500	\$0.075
<b>Total:</b>	1,500 kW	

Black Hills is proposing to retain its ability to reallocate available capacity among the system categories. The Company is also proposing that any unreserved capacity available at the end of each calendar year be rolled forward and added to the capacity for the next calendar year for the term of the RES Plan (2018 through 2021).

**Q. WHAT IS THE FINANCIAL IMPACT OF THE PROPOSED 2018-2021 ON-SITE SOLAR PROGRAM?**

A. Under the RES Plan, the cost of the proposed annual level of on-site solar resource additions, if fully subscribed at the proposed level of incentive payments, is approximately \$157,950 for each year of the program. Thus, if fully subscribed, the cumulative annual cost of the 2018-2021 on-site solar program after 4 years is approximately \$473,850.

1 **Q. WHY IS THE COMPANY PROPOSING CHANGES TO THE ON-SITE**  
2 **SOLAR PROGRAM CATEGORIES?**

3 A. Applications above 10 kW and under 30 kW (the current Medium Tier 1  
4 Category) are typically for the residential market. Since this category has the  
5 same incentive level as the Small Category, it makes sense to combine the Small  
6 Category and Medium Tier 1 Category. In addition, the maximum available  
7 capacity that can be reserved under the current on-site solar program is 100 kW  
8 (which is the current Medium Tier 3 Category). Establishing a Large Category of  
9 above 100 kW up to and including 500 kW will offer large commercial customers  
10 such as large retail stores, incentives to install on-site solar to comply with  
11 corporate renewable energy initiatives. Also, commercial customers may be  
12 interested in a system above 100 kW in order to realize benefits from economies  
13 of scale in terms of installed cost reductions for larger solar systems. Providing a  
14 Large Category, as proposed for the 2018-2021 RES Plan, offers more options for  
15 the commercial market.

16 **Q. WHY IS THE COMPANY INCREASING THE AMOUNT OF**  
17 **AVAILABLE ON-SITE SOLAR CAPACITY FROM 1,150 KW TO 1,500**  
18 **KW?**

19 A. Increasing the total annual on-site solar capacity from 1,150 kW to 1,500 kW  
20 allows the Company to create a Large Category so the Company has ability to  
21 accommodate larger on-site solar installations. In addition, increasing the annual  
22 aggregate available on-site solar capacity provides the Company with the ability  
23 to (1) back-fill capacity needs in the categories where most of the activity resides



1 during a program year (using the requested reallocation flexibility) and (2) have  
2 sufficient capacity to help ensure against shortages, which could cause the on-site  
3 solar program to prematurely close.

4 **Q. WHY IS THE COMPANY PROPOSING TO MAINTAIN THE CURRENT**  
5 **ON-SITE SOLAR INCENTIVES DURING THE 2018-2021 RES PLAN?**

6 A. Prior to implementation of the interim on-site solar program effective January 1,  
7 2015, the on-site solar incentives were significantly higher, with the Small  
8 Category at \$0.1267 per kWh (capped at 5 kW) and all other categories at \$0.16  
9 per kWh. As shown in Table KP-2 above, the 2015 Interim On-Site Solar  
10 Program<sup>2</sup> under-performed: 718.71 kW of the allotted 1,150 kW remained  
11 unused. With removal of the 5 kW PBI cap on Small Category systems on  
12 December 15, 2015 and additional financing options provided by the installers as  
13 discussed later in my testimony, the on-site solar program appears to be  
14 recovering, as indicated by increased participation so far this year. However, this  
15 increased participation does not provide adequate support for changing the PBI  
16 levels for the 2018-2021 RES Plan.

17 In addition, pursuant to Decision No. C15-1279, Black Hills agreed to  
18 initiate a retail distributed generation (“RDG”) stakeholder process, where one of  
19 the goals was to “increase accessibility to and participation in existing RDG  
20 programs”<sup>3</sup> Through the stakeholder and other meetings Black Hills has held this

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<sup>2</sup> This program offered the current and much lower incentives, including the 5 kW cap.

<sup>3</sup> Settlement Agreement attached to Decision No. C15-1279 at ¶ 41.

1 year, which I discuss later in my testimony, majority consensus has been that the  
2 current on-site solar incentive levels are adequate and appropriate.

3 **Q. PURSUANT TO DECISION NO. C15-1279, BLACK HILLS INITIATED A**  
4 **RDG STAKEHOLDER PROCESS. WHAT INFORMATION HAS BEEN**  
5 **OBTAINED RELATING TO THE COMPANY'S ON-SITE SOLAR OR**  
6 **OTHER RDG OFFERINGS THROUGH THAT PROCESS?**

7 A. Black Hills held its initial stakeholder meeting with a third-party facilitator on  
8 February 25, 2016. Stakeholder participation included representatives from  
9 Colorado Solar Energy Industries Association, the Southeast Colorado Renewable  
10 Energy Society, the National Renewable Energy Laboratory, Pueblo County,  
11 Western Resource Advocates, El Paso Green Energies, and the Sierra Club. Two  
12 follow-up meetings with a subset of this group were subsequently held at the  
13 Black Hills office on March 29, 2016 and April 28, 2016. RDG-related topics  
14 discussed during these meetings include incentive and capacity levels, rolling-  
15 over excess capacity, marketing efforts, low income programs, promoting energy  
16 efficiency and the RESA balance. While there was a general suggestion that the  
17 Company consider battery storage, there have been no other non-solar RDG  
18 suggestions.

19 Through stakeholder meeting feedback and separate meetings with solar  
20 installers, the Company has been advised that new solar installation financing and  
21 leasing options provided by solar installers for the Pueblo market are helping to  
22 increase demand for on-site solar installations. As of May 2016, the total amount

1 of reserved solar incentive capacity is roughly equivalent to the total amount of  
2 solar incentive capacity reserved during the entirety of 2015.

3 Majority consensus among these groups, particularly with the solar  
4 installers, is that the current on-site solar incentive levels are adequate and  
5 appropriate and they should stay the same to keep the market active. The 2015  
6 program year ended with 718.71 kW remaining capacity, indicating that the  
7 incentive levels were not set too high. Applications for the on-site solar program  
8 have sharply increased in early 2016 demonstrating that the incentives, in addition  
9 to financing options made available by installers, are adequate.

10 Solar installers have expressed some concern that available program  
11 capacity could run short. Increasing the program capacity by a modest 350 kW  
12 has a small impact to the Renewable Energy Standard Adjustment (“RESA”)  
13 account and helps to ensure that the program will have adequate capacity. The  
14 capacity increase will also allow creation of a large category for commercial  
15 customers seeking incentives for a larger system above 100 kW.

16 Separately, stakeholder feedback encouraged Black Hills to increase its  
17 solar marketing efforts with a goal of making customers of Black Hills more  
18 aware of the programs available to them. Suggestions were also made to making  
19 on-line tools available to customers so that they can evaluate the benefit of solar.  
20 Black Hills is committed to increasing its marketing efforts and to evaluate use of  
21 an on-line tool.

1 **IV. COMMUNITY SOLAR GARDENS PROGRAM**

2  
3 **Q. WHAT IS YOUR ROLE IN CONNECTION WITH THE BLACK HILLS**  
4 **CSG PROGRAM?**

5 A. My role with the CSG program is to design and administer the program.

6 **Q. WHAT IS THE STATUS OF THE 120 KW CSG THAT BECAME**  
7 **OPERATIONAL IN NOVEMBER 2015?**

8 A. The 120 kW CSG, as of May 2016, is 50 percent subscribed and, currently, all  
9 subscribers are residential. 10 kW of the subscriptions are low income.

10 **Q. WHAT CSG OFFERINGS WERE AUTHORIZED BY THE COMMISSION**  
11 **FOR 2015 THROUGH 2017?**

12 A. The CSG program agreed upon by the Settling Parties in Proceeding No. 14A-  
13 0535E (“2015-2017 RES Plan”) has two offerings: (1) a standard offer program  
14 (“Standard Offer CSG”) and (2) capacity reserved for competitive solicitations  
15 (“CSG RFP”). The Standard Offer CSG includes 500 kW of capacity and the CSG  
16 RFP includes a maximum of 2 MW of CSG capacity. In aggregate, the Company’s  
17 2015-2017 CSG program allows for the installation of up to 2,500 kW in each of the  
18 2016 and 2017 compliance plan years.<sup>4</sup>

19 Pursuant to Rule 3665(d)(I), Black Hills proposed minimum and maximum  
20 purchases of renewable energy and RECs from new CSGs. The cumulative CSG  
21 programs agreed upon by the settling parties under the 2015-2017 RES Plan, and

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<sup>4</sup> Through Decision No. C14-1383 issued in Proceeding No. 14A-0923E, Black Hills was authorized to acquire a minimum of 120 kW and maximum of 240 kW of CSG resources in 2015 under the approved interim solar program. On June 5, 2015, the Company filed an Updated 2015-2017 RES Compliance Plan in Proceeding No. 14A-0535E which proposed that it acquire no CSG resources in 2015. The parties to the settlement agreement approved by Decision No. C15-1279 agreed that no CSG resources would be acquired in 2015.

1 approved by the Commission, are shown in Table KP-4 below. CSG capacity  
2 reserved through the Standard Offer or RFP may come online in a subsequent year.  
3 This CSG capacity, if subscribed, will be in addition to the 120 kW CSG that came  
4 online in 2015.

5 **Table KP-4**  
6 **2015-2017 CSG Program**  
7

<b>Compliance Year</b>	<b>Standard Offer CSG</b>	<b>CSG RFP Minimum</b>	<b>CSG RFP Maximum</b>
2015	0 kW	0 kW	0 kW
2016	500 kW	0 kW	2 MW
2017	500 kW	0 kW	2 MW

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9 **Q. WHAT IS THE CURRENT STATUS OF THE 2015-2017 BLACK HILLS**  
10 **CSG PROGRAM?**

11 A. The 2015 CSG Standard Offer was launched and awarded for the total offering of  
12 500 kW on April 22, 2016. Development of this CSG is in its preliminary stages.  
13 Separately, the CSG RFP program for 2 MW was offered on May 20, 2016 and  
14 the Company is awaiting bids to be submitted by July 1, 2016.

15 **Q. WHAT IS BLACK HILLS PROPOSING WITH RESPECT TO A CSG**  
16 **PROGRAM UNDER THE 2018-2021 RES PLAN?**

17 A. With regard to the CSG program, Commission Rule 3665(d)(I) provides that  
18 “[f]or compliance years 2014 and thereafter, the Commission shall determine the  
19 minimum and maximum purchases of renewable energy and RECs from new  
20 CSGs ...” Accordingly, Black Hills proposes to offer a Standard Offer CSG and

1 a CSG RFP for the 2018-2021 RES compliance period. The minimum and  
 2 maximum amounts for each of these programs is shown in Table KP-5.

3 **Table KP-5**  
 4 **Proposed 2018-2022 CSG Program**  
 5

<b>Compliance Year</b>	<b>Standard Offer CSG Minimum</b>	<b>Standard Offer CSG Maximum Available Capacity (each Standard Offer CSG is limited to 500 kW)</b>	<b>CSG RFP Minimum</b>	<b>CSG RFP Maximum</b>
2018	10 kW	1,000 kW	10 kW	1,500 kW
2019	10 kW	1,000 kW	10 kW	1,500 kW
2020	10 kW	1,000 kW	10 kW	1,500 kW
2021	10 kW	1,000 kW	10 kW	1,500 kW

6  
 7 Black Hills projects that the cost of the proposed CSG program resource  
 8 additions, if fully subscribed at 2,500 kW, is approximately \$615,250 annually.  
 9 Thus, if fully subscribed, the cumulative annual cost of the CSG program after  
 10 four years is approximately \$2,461,000 annually.

11 **Table KP-6**  
 12 **Proposed 2018 – 2021 CSG Program Cost**  
 13

	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>Total Capacity Installed (kW)*</b>	2,500	5,000	7,500	10,000
<b>Producing Year</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
<b>Total Annual Cost (\$)</b>	\$615,250	\$1,230,500	\$1,845,750	\$2,461,000

14 \* Assumes all available capacity is installed each year and that the CSG is  
 15 installed the year following the available capacity year (*i.e.* capacity available in  
 16 2018 will be installed and producing energy in 2019).

1 **Q. WHAT WILL BLACK HILLS PAY THE CSG OWNER UNDER THE**  
2 **PROPOSED CSG STANDARD OFFER PROGRAM?**

3 A. The payments differ depending upon whether the energy and RECs involve a  
4 CSG subscriber or not. The payment structure is set forth in the Commission-  
5 approved Community Solar Gardens Agreement. The Company is proposing  
6 clarifying changes to this agreement and related CSG agreements in this  
7 proceeding; however, the payment structure remains the same. In general, it is as  
8 follows:

9 **Table KP-7**  
10 **Standard Offer CSG Payment Structure**  
11

<b>Transaction</b>	<b>Payment Amount</b>
Subscribed Energy	Credit paid to CSG subscribers pursuant to Community Solar Garden Service Tariff
Subscribed RECs	CSG owner is paid the price of \$ [the avoided cost amount in effect at the time the standard offer for the CSG is opened,] per MWh for RECs
Unsubscribed Energy and RECs	CSG owner is paid at a rate equal to the Company's average hourly incremental cost of electricity supply over the immediately preceding calendar year pursuant to Rule 3665(c)(V)

12

13 **Q. WHAT WILL BLACK HILLS PAY THE CSG OWNER UNDER THE**  
14 **PROPOSED CSG RFP PROGRAM?**

15 A. For CSGs acquired through a RFP solicitation, the Company will accept bids that  
16 are between the avoided cost amount in effect at the time the standard offer for

1 the CSG is opened and \$0.00. The payment structure for bids received and  
 2 ultimately accepted pursuant to any CSG RFP process is as follows:

3 **Table KP-8**  
 4 **CSG RFP Payment Structure (if bid accepted)**  
 5

Transaction	Payment Amount
Subscribed Energy	Credit paid to CSG subscribers pursuant to Community Solar Garden Service Tariff
Subscribed RECs	CSG owner is paid the price of \$ ____ [up to the avoided cost amount in effect at the time the CSG RFP is opened, as reflected in the Company’s Tariff No. 8 at Sheet No. R36] per MWh* for RECs**
Unsubscribed Energy and RECs	CSG owner is paid at a rate equal to the Company’s average hourly incremental cost of electricity supply over the immediately preceding calendar year pursuant to Rule 3665(c)(V)

6 \*Note: This is a cap (currently \$29.47/MWh) and CSG owners can propose less than this amount  
 7 to make an application submitted during the solicitation process more competitive.

8 \*\*Note: As described above, the Company may accept project bids with differing prices based on  
 9 whether the subscribed REC involves a low-income subscriber or not, so long as the average  
 10 aggregate REC price for the project bid is at or below the avoided cost amount in effect at the time  
 11 the CSG RFP is opened. Black Hills will accept REC prices anywhere from zero dollars up to the  
 12 avoided cost cap.  
 13

14 **Q. WITH RESPECT TO THE CSG RFP, IS THE COMPANY PROPOSING**  
 15 **TO GIVE WEIGHT TO BIDS WITH HIGHER THAN REQUIRED LOW**  
 16 **INCOME SIZING AND/OR ALLOW ALTERNATIVE BID PRICING**  
 17 **BASED ON LOW INCOME SUBSCRIBERS?**

18 A. Yes. This is discussed by Mr. Stoffel in his direct testimony.

19 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

20 A. Yes.



Appendix A

Statement of Qualifications

Kevin Pratt

I have a Bachelor of Science in Technology degree - Industrial Administration and Sales from Pittsburg State University and a Master of Science in Energy Management from New York Institute of Technology – Old Westbury. I began my utility career in 1994 with Aquila, Inc., as a Commercial Energy Representative, and then moved into a position as a Business Account Executive then into a Principal Account Executive position, serving large volume gas and electric customers. Aquila sold its utilities to Great Plains Energy (“KCP&L”) and Black Hills Corporation in 2008. With the sale of the company I became an employee of KCP&L as an Energy Consultant, focusing on large volume customers.

I left KCP&L and began working for Black Hills in March of 2009 as the Renewable Resources Manager. I have also had responsibilities for large customer account management and tech service sales. My current job title is Program Manager Renewable Energy.

My renewable energy responsibilities are primarily focused on the management, design and implementation of the Black Hills solar programs.